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Introduction

During the last decades, there has been a tendency of 'academic drift' within higher education (Lourdes Machado, Ferreira, Santiago, & Taylor, 2008; Harwood, 2010), with a potential to staff drift in which lecturers in applied universities become more 'academic' through the addition of research responsibilities (Griffioen & De Jong, 2013; Kyvik, 2007; Neave, 1978). New universities in mainland Europe moved away from a teaching-only practice to more engagement with research, whereas old universities (i.e. research-intensive institutions) attempted to improve their teaching capacity (Huisman & Kaiser, 2001; Kyvik & Skodvin, 2003). Within the Netherlands, the Ministry of Education, Culture and Science emphasised the connection between research and teaching within universities (2015), following the general positive–normative view on research integration (Trowler & Wareham, 2008).

The most often applied research–education connection is within the work of academics. Some consider researchers with teaching responsibilities or lecturers with research responsibilities as the underpinnings of universities (Handal & Herrington, 2003). There are multiple presumed benefits of embracing an integrative role of academics in higher professional education institutions. It is not just one group of stakeholders, such as students, that could benefit, but integrating research and teaching in the academic leads to all types of positive effects: First, skilled, up-to-date researchers are able to teach students the latest ideas, innovations and methods of their own discipline (Turner et al., 2008). Second, academics working in education and research provide a line of communication and of knowledge between research programmes and curricula, which leads to faster integration of research in the curriculum as well as provides

opportunities to involve students in research projects. Third, students might be enthused if lecturers discuss their own research projects: Getting to know the 'research cycle' by hearing first-hand experiences is insightful in many ways, and is a very different learning experience from 'just' reading or hearing about the outcome of such research (Healey et al., 2005; Hunter et al., 2007). Vice versa, lecturers are offered a unique moment of reflection and of feedback by discussing their ongoing research with groups of future professionals. This might strengthen the research (Fung, Besters-Dilger, & Van der Vaart, 2017). At the same time, some systematic quantitative studies do not show any cross-quality effects between research and education (Hattie & Marsh, 1996), and others show that integrating 'education' and 'research' could result in different results, depending on the indicators applied, such as master grade of students or student satisfaction (Palali, Van Elk, Bolhaar, & Rud, 2017).

However, an important element in higher education change are the people who personify that change and one important aspect is the personification of the lecturer. Especially when changes are made while executing primary processes, the academics involved need to be able and willing to become part of the intended changes. Additionally, they need to be willing and able to do so collectively (Ashwin, 2006). Being willing and being able to are two rather different elements in organisational change. Willingness to change refers to one's perceptions of the changes proposed, the interaction with these changes and one's professional identity, as well as the practice's level of improvement one assigns to the proposed changes. These notions interfere with one's ability to change, in particular one's self-evaluated ability, also called self-efficacy (Bandura, 2006). Lecturers' beliefs about their ability to perform the new tasks influence their performance, as lecturers to students in research aspects, but also their own performance as (new) researchers' (Griffioen, De Jong, & Jak, 2014, p. 25). Therefore, lecturers' trust in their own capabilities influences the integration of research across the university (Griffioen et al., 2014; Runhaar, Sanders, & Yang, 2010).

However, changing academic's belief and identity to include research is not an easy endeavour, even if it has multiple benefits for lecturers and research itself. Following Becher (1989), Trowler (1998, p. 57) explains:

> [T]he way groups of academics organise their professional lives and nature of the professional task on which they are engaged 'would seem to be inseparately intertwined'. Their offices are bedecked with artefacts that symbolise their disciplinary allegiance. The very language they use is structured by their

discipline, conditioning the modes in which arguments are generated, developed, expressed and reported.

As with other proposed research–education connections, it would request a mechanism to alter the balance between both in academics' practices. Changing practices in this regard easily needs to result in changing academics' capacity. Generally, universities have two essential strategy options for changing their personnel's capacity: professionalisation and hiring (Griffioen, 2018). This chapter focuses on the latter: to hire a newly defined body of employees with new capabilities to fulfil new tasks. Combined, the two strategies can assist in building the university's capacity for research as well as for research integration. Building research capacity is 'a process of individual and institutional development that leads to higher skill levels and greater ability to perform useful research' (Grange, Herne, Casey, & Wordsworth, 2005, p. 32).

There are some examples of universities making an institutional shift from approaching their academic staff as lecturers to approaching and changing how their own roles as academics are understood, without undermining the intrinsic motivation of such staff members (e.g. Hunt, 2016). However, this is difficult to achieve in large higher education institutions. Furthermore, it is a costly and time-consuming endeavour and does not always deliver a structural solution. professionalising academics might lead to more knowledge about research or education in the short term, but does not account for direct experience with one of the two disciplines, thus risking the acquired knowledge during such courses to fade over time. The other way to change the sole focus on teaching activities to including a stronger emphasis on research, or the combination of research and teaching, is to hire new lecturers with stronger research competences.

However, hiring strategies are not straightforward either (Griffioen, 2020). Dutch applied universities do not specifically aim for an increase in research output that one would expect when universities raise their research capacity (Levine, Russ-Eft, Burling, Stephens, & Downey, 2013). Dutch applied universities aim for 'a functional balance between didactical competencies, professional competencies, and research competencies in lecturers that go beyond a lecturer's formal educational level' (Griffioen, 2018, p. 350). While this balance is more relevant for the proposed research integration strategies explained in this book, its diffuse message makes changing hiring practices more difficult. Moreover, hiring new staff in universities is generally the responsibility of lower management, yielding that changing hiring practices implies changing beliefs and competences among lower management as a prerogative (Griffioen, 2018).

The Dutch Ministry of Education presented clear aims for applied universities to increase the research–education connection in their consecutive Strategic Agendas, with the clearest quote in 2015: 'The ambition of 2025 is that [all] institutes for higher education have connected research, teaching and practice on all levels' (Ministry of Education, 2015, author's translation).

In line with the Dutch national governing structure (Griffioen, Ashwin, & Scholkmann, 2021), and the following national debates about research integration (Griffioen, 2013), smaller or larger change efforts in all Dutch applied universities were seen. Therefore, these universities could be expected to shift in the profiles of employees sought to add to their capacity of employees.

Although the scale of analysis of the individual employee has – indirectly – played a part in several of the chapters, here we consider the academic further, employees that are hired for their academic expertise. Researching the proposed role of academics working in higher professional education in job openings leads to knowledge on the practicalities of the research–teaching nexus: How are these two realms united in the individual academics' responsibilities? Do research and teaching tasks and competences complement each other, or are these two self-contained fields of expertise?

In the light of changing the integration of research and education in the academic, coping strategies among professional academics in adding the task of research through professionalisation or new employment become relevant. Therefore, this chapter first considers the coping strategies of lecturers who include research tasks and competences to their responsibilities through professionalisation or hiring. Then, the changes in tasks and lecturers' competences as the universities request are presented through a national longitudinal study between 2015 and 2019. The found shifts indicate whether the universities' ambition to change their practices to include research has resulted in the ground-floor ambition to hire a new type of personnel. Where changes in core strategy are relatively easily made, these ground-floor changes can indicate shifts in university practice.

The Academic's Coping Strategies in the Research–Teaching Nexus

Historically, lecturers' initial role in applied universities was described as a purely teaching-focused job, with a great perceived distance between the teaching responsibilities and the latest developments in the discipline (e.g. Santos, Pereira,

& Lopes, 2021). Developments in professionals' fields were deemed important and therefore more actively followed. Just before the turn of the century, the lecturer's role was changing: More than before, lecturers in applied universities were expected to share up-to-date knowledge about developments and innovations in their discipline, both in a sense of 'new knowledge' and of new methods or techniques (Griffioen, 2013). The notion of professionalism changed from a high trust in experienced action to the need for providing more systematic underpinnings and evaluating practice as part of accountability cultures (Fook, 2004). Professionals were trusted more if research results confirmed their actions. This goes hand in hand with a stronger emphasis on lecturers taking on research tasks themselves as well – from being informed about research, to being active researchers. Research was expected to become part of their professionalism, knowledge, identity and action, while before professional expertise and didactical skills were considered sufficient (Griffioen, 2013; Griffioen et al., 2014).

Additionally, from a pedagogy perspective, in the last decades, a shift occurred from knowledge as something that is produced in research or professional practice and was then transferred to learners, to a more complex understanding of processes of knowledge circulation, also including students in different pedagogical roles (Kamp, Dolmans, Van Berkel, & Schmidt, 2011). Knowledge is made by practice and actions, and the practices changed (e.g. Felicja, Servant, Norman, & Schmidt, 2019). This is presumed for scientific knowledge (Shapin & Schaffer, 1985) and can be applied for professional knowledge. Knowledge building occurs via collaborations and exchanges, even when the dominant disciplinary perspective focuses more on objectivity (Brew, 2001). Therefore, the lecturer's role is diversified as well and students and lecturers are more collectively building knowledge structures. Healey's (2005, p. 13) typology of research–teaching relationships offers a helpful structuring device to recognise such activities. In this, he identifies four types of research implementation in education: Research-tutored students are positioned as participants, and the focus is on learning about research content. The research-based variation views students as participants, and teaching and learning focus on research processes and problems. Research-led students participate more like an audience, learning about content that follows from research. Finally, research-oriented implementation shapes students as an audience, but then focuses on research processes and problems. Each of these four types are expected to rely on a different set of skills for every type. To deliver 'research-based' teaching activities, for instance, a lecturer should have solid research experience and competences as well as research-specific didactical skills. Thus, already the integration of research within a teaching role suggests different competences needed.

This yields for changed expectations for lecturers' roles and competences. At a systems level, the Dutch national government stated that all lecturers should at least have a master's degree (Ministry of Education, 2015). At the time, a large part of the body of lecturers was employed based on a bachelor's degree and extensive professional experience (Griffioen, 2013), a system previously relying on experience and not degrees. Such broad strokes of change often also result in perverse effects, in this case groups of lecturers striving for the 'easiest' master's degree to be able to get permanent positions, and very young academics without professional experience being hired because they did have a master's degree while lacking pedagogical expertise. 'Research competences' and 'master's degree' were made mutually equal, often not resulting in the requested competences or experience (Heest, 2018). Currently, most of these perverse effects are reduced, although the choice of salary scales for lecturers is still partly based on 'having a master's degree', and not fully on the competences implied by such a degree. These broad stroke changes can create large changes quickly, but they need to be combined with the tuning of these changes related to specific contexts.

The changed expectations also resulted in new coping strategies among lecturers, now balancing different responsibilities within their educational role and increasingly taking on research roles. A few scholars have studied these changes in lecturers of an applied university. The first perspective found in the literature focuses on the change seen in the professional identities of lecturers in these situations, for instance, among new nurse-educators and teacher-educators in Portuguese and English professional higher education (Lopes, Boyd, Andrew, & Pereira, 2014). This study showed disciplinary differences in identity. Nurse-educators identified as nurses educating other nurses, in which they also needed to share with their students an – what they saw as – 'underdeveloped type of nurse research which was more related to reflection' (p. 179). However, the teacher-educators did not identify as school teachers (anymore). For them, research was one of their academic roles. Therefore nurse-educators and teacher-educators have shown to have a different type of dual identity due to their difference in ties to the professional field. Where research did not empower the nurse-educators' identity as nurse and educator, it did empower the teacher-educators' identity as academic and educator.

A second focus is on the more experienced lecturer taking on an active research role (Winkel, Van der Rijst, Poel, & Van Driel, 2016). In a Dutch applied university, six coping strategies related to the lecturers' identity were found. The 'continuous learner' considered research an addition to teaching because it adds knowledge to teaching or because teaching no longer provides new learning opportunities. The 'disciplinary expert' aimed to increase their knowledge or

their authority as the knower of the discipline through research. The 'skilled researcher' wanted to understand how research worked, of which some enjoy the craftmanship and others like the potential of innovation. The 'evidence-based teacher' aimed to be a role model for students as evidence-based professionals or to provide a more solid foundation under the teaching role. The 'guardian' was mainly working on sustaining boundaries, such as time to their research work, while the 'liaison officer' aimed to cross boundaries as a broker and developer across education, the professional field, or the scientific field.

A third focus was on the combined lecturers' roles in applied higher education, therefore more connected to the systems level of academic work. A study in health education (Boyd & Smith, 2011) shows how a large proportion of lecturers cope with the combined roles by subverting research activities and their research identity, even while research is highly regarded in their university: 'These academics are choosing or being directed to pursue identity trajectories that emphasise knowledge exchange, leadership or teaching and are overturning the privilege given to researcher identity in the higher education sector' (p. 693).

Smaller proportions of lecturers lead to resonance, dissonance and rejection of research. Additional analysis (Smith & Boyd, 2012) has shown that the group of lecturers rejecting research generally 'are strongly motivated to contribute to the development of student practitioners. They tend to hold on strongly to their identity as a clinical practitioner rather than quickly embracing new identities of scholar and researcher' (p. 63).

Where Henkel (2005, p. 164) stated that the academics' 'research reputation' was the strongest currency in higher education, this shortlist of studies of the small field of academic identity and coping strategies in applied universities depicts a more nuanced picture of lecturers in applied higher education – to say the least. For some lecturers, their identity is based more on their professional role, for others research is a part of their core identity, some cope wonderfully while others struggle massively. However, it is clear that the different roles request at least some juggling, and this can result in a shifting identity when research is embraced as a new task and/or learned as a new set of competencies.

Who to Hire to Enact organisational Change

The focus on implementing research in applied universities from the perspective of the lecturer's identity and coping strategies has enriched the insight into the possible responses a change agent can expect when adding 'research' to the mix

of roles and competences. However, it does not provide insight into the type or types of lecturers or academics that applied universities intend to appoint when searching for new employees.

As the multiple roles in the lecturers' coping strategies have demonstrated, it is hard to recognise a clearly defined conception of 'the' academic in higher professional education. With the historical changes from teaching-only institutions to universities of research and education, combining research and teaching activities and responsibilities in the role of individual academics within the organisation meant that job profiles had to become more varied, specific and explicit:

> In the process of transferring powers and responsibilities from the government to universities and *hogescholen*, a trend can be identified—movement away from uniformity in dealing with staffing issues, and towards the devising of personnel management systems that allow for individual, subject, or market differences and flexible reward systems. An important development is the current implementation of a new system of job profiles for academic staff at universities. This system aims at making explicit the various roles, tasks, and responsibilities that must be carried out to achieve the stated objective. Individual development plans become possible, in which different staff roles are to be acknowledged, both vertically and horizontally within the same ranks. Individual staff members can apply for specific roles on the basis of an assessment of their qualifications—for example, to be more involved in either teaching or research. Teaching activities are classified into four specified tasks, such as teaching, curricular development, counselling student projects, and evaluation. Research activities consist of coordination, acquisition of contract research, and participating in research working groups and committees.
>
> (Huisman, 2008)

The remainder of this chapter considers the content of 'future' academic employees of Amsterdam UAS, in line with a more divided human resources system, and as indicating the changes that take place at the staff level between 2016 and 2019. By formulating tasks and competences in job profiles, the changing relationship between teaching activities and research activities as it is united in the individual academics' responsibilities can be revealed. Potentially, the shifting roles of lecturer and researcher result in a more integrated variation of that role. However, it is also likely that the more uniform roles of lecturer and researcher are found, which indicates team managers' confirmation of the existing division between both primary processes and therefore an (implicit) resistance to an increased organisational hybridity, as explained in Chapter 1

(Bystydzienski, Thomas, Howe, & Desai, 2016; Quirke, 2013). Therefore, studying these roles means exploring how, and to what extent, different tasks and competences related to education and research are distinguished in the job description, and what 'weight' is given to every element.

A Nationwide Perspective to Change in Job Profiles

The potential changes in the job profiles of newly hired staff in Dutch applied universities were studied parallel to the Amsterdam strategic programme by analysing job openings. In the same week (around June 28) between 2016 and 2019 annually, all publicly announced job openings were gathered from the main Dutch online job board for Dutch universities of applied sciences (http://www.werkenbijhogescholen.nl). Only openings related to the primary processes of research and teaching were collected, leaving out openings related to management or supporting staff positions. The data gathering resulted in a sample of N=474 job openings (2016: n=124; 2017: n=87; 2018: n=168; 2019: n=95) coming from twenty Dutch universities of applied sciences. We chose this timing at the end of the college year because of its annual peak in the number of job openings aimed to complete the staffing for the next college year.

The job opening texts were analysed in line with the methods of Pitt and Mewburn (2016) and Griffioen (2018), who also analysed job openings and their coding scheme for the competences were both inspired by the Researcher Development Framework (RDF; Vitae, 2010). Yet, because the RDF is primarily researcher-focused, we adapted the RDF and created some extra categories that were more education-focused to distinguish and give more weight to specific teaching competences.

A coding scheme was created to discern two main facets in job openings: competences and tasks. Competences were concerned with personal characteristics or skills prospective employees had to possess to qualify for the job. Tasks indicated the activities/jobs the prospective employees were expected to do.

The competences were codes based on RDF by Vitae (2010). Inductively and as an expansion of the RDF, three types of educational competences were discerned: 'teaching knowledge', 'educational developmental abilities' and 'teaching experience', which in some way were the counterparts of 'research knowledge', 'research developmental abilities' and 'research experience'. The code group 'resources and finances' was initially added as neither research-focused nor education-focused, but ultimately turned out to be a research-focused competence because it only concerned applying for research grants.

The tasks were coded using Griffioen's (2018) coding scheme, which was originally inductively developed through an open coding content analysis of job openings (Joffe & Yardley, 2004). Before and during our coding process, we found no reason to deviate from this coding scheme. A list of all tasks and competences can be found in Table 7.1, including some example quotes.

Table 7.1 Overview of all tasks and competencies including example quotes

	Code	Example quotes (translated by authors)
Competences		
Education-focused	Teaching in higher education knowledge (TiHEK)	*You have knowledge about didactical skills*
	Educational development abilities (EA)	*You are able to translate research results into relevant building blocks for the education*
	Teaching experience (TE)	*Experience in supervising/guiding students*
Research-focused	Research knowledge (RK)	*Knowledge of research skills and practice-based research*
	Research development abilities (RA)	*As a visionary, you have a clear view on the research theme, which you can translate into research questions in an excellent manner*
	Research experience (RE)	*You have published in scientific and professional outlets*
	Resources and finances (RF)	*You can obtain project grants and other external sources of funding*
Tasks		
Education-focused	Educational development (ED)	*Part of your responsibilities will be the maintenance and continuous development of educational programmes*
	Examination (EX)	*You will grade exams*
	Lecturing (LE)	*You will teach students*
	Supervision (SU)	*You will provide students with feedback and feedforward that the student can apply to projects in the programme, during internships or during work*
Research-focused	Acquisition (AQ)	*You will use your professional network for acquiring research assignments*
	Dissemination (DS)	*You will publish your findings in scientific and professional journals*
	Research (development) (RD)	*You will be involved in conducting practice-based research together with students*

Samples from each year were separately coded in Atlas.ti8 by two researchers. One researcher coded the complete sample and the other performed a 10 per cent cross-check of the sample. The codes were then individually compared and all coding differences were discussed between the two researchers until consensus was reached. The codes given to individual job openings were then transformed in a binominal score of present/not present.

Conceptually, ($2^4 =$) 16 job profiles were possible, based on the binomial occurrence of teaching-focused and research-focused competences and teaching-focused and research-focused tasks in the job openings. All job openings were analysed to assess whether they contained any competence or task related to either teaching or research. In the following sections the findings of this study are explicated.

Combinations of Research and Education that Dutch Applied Universities Look for in Academics

Academics' jobs can depict different combinations of research and education, as was also shown in Section 7.2. The analysis of job openings in applied universities between 2016 and 2019 indicated that out of the conceptually sixteen potential different types of profiles, four profiles covered over 80 per cent of the job openings, with all other profiles covering only 1–3 per cent of the job openings. These four profiles can be depicted as the 'teacher', 'teacher-researcher without research competencies', 'teacher with dual competencies' and the 'teacher-researcher', and are hereafter explained. Quotes from the job openings are referred to in-text by a number that refers to the particular job opening and the year, and are translated from Dutch to English by the authors.

Profile 1: 'teacher'

The findings show that one of the four most prevailing job profiles that applied universities intended to hire between 2016 and 2019 can be depicted as the 'teacher'. The job openings in this profile only contain competences and tasks focused on teaching. Considering the competences that were mentioned in these job openings, prospective employees were required to be experienced in teaching and educational development, and possess knowledge of teaching in higher education. Experience with teaching was mentioned both explicitly (e.g. 'teaching experience as a language teacher is a requirement', 2017, d. 38)

Table 7.2 Relative occurrence of research- and teaching-related competences and tasks (percentage of profile totals)

Profiles → Categories ↓	Teacher	Teacher-researcher without research competences	Teacher with dual competences	Teacher-researcher
Teaching in higher education knowledge	62%	70%	72%	61%
Educational development abilities	40%	30%	43%	40%
Teaching experience	86%	70%	89%	68%
Research knowledge	-	-	62%	64%
Research development abilities	-	-	-	14%
Research experience	-	-	46%	74%
Resources and finances	-	-	10%	17%
Acquisition	-	14%	-	17%
Dissemination	-	8%	-	32%
Research (development)	-	88%	-	96%
Lecturing	94%	82%	83%	75%
Supervision	88%	84%	86%	82%
Examination	19%	10%	28%	14%
Educational development	76%	78%	82%	88%

and implicitly (e.g. 'you are able to teach a range of sports', 2018, d. 79). With regard to teaching in higher education knowledge, openings were looking for candidates who had 'affinity for working with young adults' (2018, d. 140) or were 'interested in pedagogy and the learning process of young upcoming professionals' (2019, d. 101). Furthermore, it was important for prospective teachers to have educational development abilities (2018, d. 4): 'you know how to translate developments in the field to good and challenging design education'. In line with this, practical experience was often asked: 'relevant working experience (minimum of 5 years) at a production company and/or design company as a designer or engineer' (2016, d. 36), sometimes of multiple years. Some openings also stated candidates should have a professional network that could be used during 'designing and the execution of education' (2019, d. 84). In regard to the

required degree, most openings stated candidates should have a master's degree. However, some stated a bachelor's degree was sufficient.

In regard to the tasks, candidates applying for openings in this profile were mostly expected to contribute to lecturing and supervising students, as in the following example: 'you will give lectures and tutorials and supervise students during projects and their graduation research' (2017, d. 28). Next to supervising students during projects, some openings expected candidates to contribute to coaching students – for example in their competence development (2018, d. 123), or in their development towards independent professionals with an inquiring mind (2017, p. 58). In addition, candidates were often asked to participate in educational development by, for example, 'actively participat[ing] in the continuous improvement of our education' (2018, d. 12). Sometimes, candidates were asked to link practice to educational programs by 'identif[ying] relevant developments in practice and translat[ing] these to the educational programmes together with the team' (2018, d. 46). Lastly, a small proportion of the openings asked candidates to contribute to examination through conducting tests or examining graduation projects.

Profile 2: 'teacher-researcher without research competencies'

A second job profile found among a considerable amount of job openings was the 'teacher-researcher without research competencies'. This job profile requested prospective candidates to both execute teaching and (possibly) research tasks, but in regard to the competences, only expected candidates to possess teaching-related competences. Research-related competences were not mentioned in these job openings. Regarding the competences, candidates were required to have expertise and practical experience in the relevant discipline. Additionally, candidates needed to possess up-to-date knowledge about developments in practice: 'you are informed about and follow the recent developments and research in your field of expertise' (2016, d. 16). Furthermore, prospective candidates were mostly not expected to demonstrate experience with teaching. Instead, 'a drive to educate students' (2019, d. 31) and a preference for candidates who had teaching experience or who were willing to professionalise themselves in teaching were asked. Affinity or (in some cases) experience with developing education was also asked in the openings. Job openings in this profile largely required candidates to have a master's degree, but a few stated that a UAS bachelor's degree was also sufficient. Additionally, some candidates are asked to have a relevant professional network and work experience in professional practice.

Considering the tasks, candidates were mainly required to contribute to teaching: 'the core of your work as a lecturer is the execution of teaching within the educational program' (2019, d. 2). In addition, tasks such as supervising students and contributing to educational development were asked: 'In addition, you supervise and examine students during their internship, graduation or in doing practice-based research' (2019, d. 70). Educational development was mainly concerned with integrating recent developments in course programs: 'Analysing developments in the discipline and professional practice and integrating the results in educational programs' (2018, d. 30) and 'enhancing the educational quality' (2017, d. 27). A few job openings mentioned conducting research as a compulsory task, but most candidates had the option to contribute to conducting research: 'participating in innovative research projects may become part of your tasks, depending on preference, ability and availability' (2019, d. 49). Other research-related tasks mentioned were: 'writing and publishing research papers with students and colleagues' (2018, d. 24) and 'acquisition of assignments for the knowledge centre' (2018, d. 30). Additionally, a few candidates were asked to 'maintain connections with the professional field and other relevant institutions, so that you are informed about the recent developments in your domain' (2017, d. 27).

Profile 3: 'teacher with dual competencies'

A third profile that appeared as one of the most prevailing job profiles applied universities looked for was the 'teacher with dual competences', which encompassed job openings that included teaching competences and tasks and additionally required prospective candidates to possess research competences. Unlike the 'teacher without research competences', the job openings that requested this profile did not mention executing research tasks, but did request research competences. In regard to the competences, prospective employees were expected to have experience with research and teaching, and in some job openings, candidates were even expected to have multiple years of experience with mostly teaching: 'With some years of teaching experience and additionally research experience, for example through a PhD research in the biomedical/biotechnological area' (2017, d. 42). Additionally, prospective employees were asked to be able to 'signal relevant developments in the professional field and use these to propose adjustments to the educational program' (2016, d. 22). In line with this, some candidates were expected to be experienced in developing educational programmes, but none were asked to have experience

with developing research projects. Unique to this profile was the focus on more specified and detailed knowledge about teaching, such as knowledge about what makes content meaningful and effective, and knowledge about a diverse range of didactical working methods. In addition, openings in this profile were the only ones that mentioned prospective candidates should have 'a research-minded attitude': 'you have a learning, reflective and research-like attitude and are able to guide students in achieving this' (2019, d. 78). Furthermore, many openings in this profile asked for professional experience relevant to the opening's related discipline as well as a relevant network and the ability to easily make connections within and outside the organisation. In general, candidates in this profile were expected to have a master's degree, but some openings stated a bachelor's degree was also sufficient. A few openings stated a PhD was compulsory.

Considering the tasks, prospective candidates in this profile were mostly expected to give lectures, coach students (during internships and graduation projects) and contribute to educational development. In this profile, educational development was not solely concerned with integrating the latest developments in courses, but was also described as enhancing the educational quality and 'contributing to the development of innovative course programs' (2018, d. 113). In addition, some were expected to contribute to managerial tasks, which seems to be an extension of their educational development tasks, such as: 'contributing to quality assurance of the educational program' (2017, d. 24), or 'outlining the course of the minor entrepreneurship' (2019, d. 17). Candidates in this profile were also expected to maintain an active network within their professional field, which in turn should lead to a better integration of professional practice in educational programs.

Profile 4: 'teacher-researcher'

Finally, the fourth most prevailing job profile applied universities looked for was the 'teacher-researcher', which encompassed research-related competences and tasks as well as education-related competences and tasks. Concerning the competences, after disciplinary knowledge, knowledge of or affinity with research methods was required most often. Specific knowledge of teaching methods was not necessarily required, but applicants did need to have affinity or in most cases experience with educating students and giving classes: 'knowledge of and experience with education and research' (2016, d. 102). Unique to this profile were the competences asked regarding acquiring research projects, or having a vision on something: 'you have a clear vision on the current challenges

in the logistics and role of the professorship' (2019, d. 104). In addition, similar to employees in 'teacher with dual competencies', employees in this profile were expected to have managerial qualities. However, whereas profile 3 mainly stated candidates should have 'organisational qualities', profile 4 stated candidates should be able to 'manage projects' (2017, d. 5) and 'be an inspirational leader' (2018, d. 3). It seems these managerial qualities were not just for the benefit of organising certain projects, but rather for the leadership over other employees. As such, some candidates were asked to be able to 'take on a diversity of roles, such as the disciplinary expert, researcher, project manager, and mentor' (2017, d. 26). Profile 4 was also the only profile that expected candidates to have experience with publishing scientific articles: 'you have written at least one publication' (2016, d. 54). Most of the openings mentioned candidates should have research experience; however, some of these mentioned it as an 'advantage' rather than a requirement: 'As it is expected […] to also conduct research, affinity and/or experience with conducting research is considered an asset' (2019, d. 91). In most cases, experience in the professional field was required: 'some years of working experience in the field' (2016, d. 79). Many candidates were expected to have a relevant network, for the benefit of integrating research into educational programs, for acquiring research assignments and for the purpose of raising publicity for the research group. Interestingly, while the other profiles mainly expected candidates to use a professional network to acquire knowledge from professional practice, candidates in this profile were also expected to return knowledge to professional practice: 'through your large and relevant network, you effortlessly create an interaction between science, education and practice. You do this through raising publicity for your research results in publications, readings, demonstrations and forms of education' (2018, d. 3). In some cases, candidates were expected to be 'an authority in your discipline' (2018, d. 3). Considering the required degree, most of the openings stated a master's degree was sufficient, but a considerable amount of openings stated a PhD was compulsory.

Considering the tasks, candidates in the teacher-researcher profile were expected to contribute to both teaching and conducting research as well as innovating and developing these two disciplines in their field: 'together with an enthusiastic team, you contribute to educational innovations' (2016, d. 100). Unique to this profile was that multiple candidates were expected to contribute to acquisition, often in terms of finances for research projects: 'you acquire externally financed project that fit in to the context of the education and research' (2017, d. 57). Whereas the profile 'teacher-researcher without research

competences' in some cases asked candidates to disseminate knowledge mainly to the professional field, the current profile expected candidates to disseminate knowledge to the scientific field as well as the professional field in various ways: scientific publications (2016, d. 117), MOOCS (2018, d. 80), readings (2018, d. 3) or presentations (2019, d. 29). Moreover, multiple candidates in this profile were required to manage a team: 'you will create a team [knowledge circle] with teacher-researchers and provide them with coaching' (2016, d. 61).

Comparing Hiring Profiles

As these four profiles encompass approximately 80 per cent of all job openings analysed between 2016 and 2019, they give a good impression of the hiring practices of Dutch applied universities in terms of looking for candidates who are expected to work in jobs related to teaching as well as research. One of these profiles is merely focused on teaching, while three profiles could be considered more research–education integrated job profiles, as they request both teaching and research competences and/or tasks.

An important resemblance between all four profiles is the expectation that new employees would fulfil the same combination of tasks: to teach, to supervise students and to develop education, and therefore include the newest developments of the professional field in educational programmes. The differences between the profiles is mainly found within the research tasks and research competences, and therefore excluding the 'teacher' profile, which does not include research as such. For example, within the research tasks, there is a difference in prominence in conducting research, ranging from research as optional to research as a core responsibility. Additionally, considering the acquisition of research projects, responsibilities range from raising financial resources for these projects to just organising partnerships for research projects. Another difference is the amount of experience in research as well as education, and not being specific in terms of asking to engage with certain research methods or educational experience.

When unpacking the differences between profiles a bit further, it becomes clear that the connotation of research and education can differ between profiles as well. For instance in 'the teacher-researcher without research competences' not only research competences are left out, but also the educational competences requests are rather unspecified. In other profiles, educational experience is positioned with much more prominence. However, on a content level, for the 'teacher with dual competences', much more often specific didactics, ICT skills in education and blended learning experiences are requested.

Another difference is that 'the teacher-researcher' profile more often requests for a personal vision about the professional field or research strand, managerial competences and tasks and 'being an authority in the field'. Furthermore, research and education are much more often mentioned as two parts of a whole, for instance, 'one has experience in research and education'. Interestingly, for the lecturers with a higher research prominence in 'the teacher-researcher profile', having a research-minded attitude is not mentioned, while this is mentioned frequently for 'lecturers with dual competencies'. It seems as if this attitude was already included in the task of research and related experience in conducting research, while its absence requests for the need to mention a particular attitude. For 'the teacher-researcher' profile, in about half of the cases, a PhD is requested, while the other profiles mostly request master's degrees and in some cases a bachelor's degree is sufficient.

Another particularity is the reference of active connections to the related professional field. For the first three profiles, it is often stated that candidates should maintain a network with professional practice to stay up-to-date. For the 'teacher-researcher' profile, this request is added with a statement that candidates should (be able to) bring this knowledge back into practice and acquire research projects.

Thus, not only differences between the prominence of research tasks and competences can be seen between the four different profiles, also the connotation of the content differs between them.

Conclusion: The Changing Dominance of Job Profiles

To consider change in hiring practices in the Dutch applied universities over time, this section considers whether the prevalence of the four most prominent job profiles changes between 2016 and 2019. Then, similar to the previous section, also the differences in connotation in each profile between the years is described (for an overview see Table 7.3).

The findings show the most prevailing job profile that applied universities intended to hire in all years between 2016 and 2019 is the 'teacher', which ranged between 44 per cent and 51 per cent of all job openings. This slight increase is interesting when remembering this book is about studying applied universities changing from teaching-only institutions to research-and-teaching institutions.

Similarly, 'the teacher without research competences' decreases somewhat from 10 per cent to 8 per cent after first gaining prominence. The 'teacher with

Table 7.3 Frequencies of four most occurring job profiles. Relative occurrence between brackets

	2016	2017	2018	2019	Total
'teacher'	55 (44%)	39 (45%)	85 (51%)	47 (49%)	226 (48%)
'teacher without research competences'	12 (10%)	11 (13%)	19 (11%)	8 (8%)	50 (11%)
'teacher with dual competences'	15 (12%)	10 (11%)	25 (15%)	18 (19%)	68 (14%)
'teacher-researcher'	24 (19%)	17 (20%)	22 (13%)	7 (7%)	70 (15%)
Total	124	87	168	95	474

dual competencies' becomes somewhat more prominent from 12 per cent to 19 per cent, and 'the teacher-researcher' profile has a sharp reduction after 2017 from 19 per cent to only 7 per cent in 2019.

Not much content change was found within the profiles between the different years. Formulations showed to be rather similar. There seems to be a slight change in 'the teacher' profile from requesting 'experience in teaching' in 2016 to asking for 'affinity with teaching' in 2019. This possibly is the consequence of a shortage of lecturers in educational programmes, resulting in less requirements to broaden the chance for the educational programmes to find a candidate.

Changing employee profiles as part of an organisational change programme is no easy endeavour. Actual changes – if any – are often hidden underneath employees' formal roles, resulting in false-positive or false-negative results. This chapter has shown what a more sophisticated, though more time-consuming, perspective to similar changes can result in.

The object of study in this chapter were Dutch universities of applied sciences during a time in which Amsterdam UAS had a purposeful change programme to further connect research and education. During this period, many other applied universities in the same country had set in place their own change instruments to achieve similar goals. Despite these efforts, the differences found in job profiles are slim. A decrease of the 'teacher-researcher' profile even contradicts the effort to increase the number of people working in research. The increase in the 'teacher' profile implies the same. It is known from the shop-floor level reality of these universities that individual lecturers have a hard time gaining a research position, and more in general combined positions of teaching and research are difficult to register in the administrative system. Further, different managers are responsible for the education budgets or the research budgets. Lecturers are generally hired by the educational programme as an organisational unit, while

research activities take place in different organisational units, which often craft their own, independent job profiles for future employees. Previous research (Daas, Day, & Griffioen, 2019; Jenkins & Healey, 2005; Jenkins, Healey, & Zetter, 2007) suggested that organisational consistency, and in particular bringing managerial responsibilities of research and education in a single hand, would increase the potential for research–education connections. In that regard, it is likely that the changes in educational programmes have been a sufficient start to take more seriously research competences in future employees, as indicated by the reduction of 'the teacher without research competences' profile, and the increase in 'the teacher with dual competences profile'. However, it is likely that an adaptation of organisational structures – where research and education become part of single departments – is needed to increase the hiring of the 'teacher-researcher' profile.

An additional difficulty is the level of expertise sought in future employees, rated from their potential pay scales. As the findings have shown, generally the lecturers sought in these universities are rather experienced professionals with a high potential for teaching. This results in a relatively high pay scale. The number of potential candidates that additionally can bring research expertise to suit that high pay scale is often low. Therefore, for a research department to co-hire a teacher-researcher with an educational department implies that the difference in competency between research and education needs to be balanced out in the pay scale via taking the average which fits the academics' competencies on neither side. Therefore, a separated hiring strategy is likely to be much easier and results in the best value-for-money at both ends, at least as long as the research–education connections in personnel is not viewed as an added value for the university. It still is difficult to put this added value into words, let alone into quality indicators. In that regard, it is not sufficient for change agents to be normative-positive as Trowler and Wareham (2008) characterised; it is essential that change agents request administrators to clearly formulate the expected benefits of the connection, as well as what that is worth. Then organisational changes and budget responsibilities can be positioned in line with the universities' ambition and changes at the personnel level can be more easily achieved.

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